CLAIMS

1. Telecommunication carrier processor subsystem (CPS) having an input (IN) and a plurality of outputs (OUTi, OUTj, OUTk) and being adapted to receive, at said input, telecommunication cells (1, 2) each comprising a payload field and a H-bit header field, said subsystem including telecommunication interface means (TID) having an interface input corresponding to said input (IN) and a plurality of outlets (OTLi, OTLj, OTLk) each coupled to distinct ones of said outputs, said telecommunication interface means including header detection means (HDC) connected to said input and routing means (RTC) connected to said input, to said plurality of outlets and controlled by said header detection means, said header detection means being adapted to derive a R-bit connection identifier from at least a portion of the set of H bits contained in said header field, R and H being integer numbers with R smaller than H,

characterized in that said routing means (RTC) are adapted to transmit a cell (1, 2) from said input (IN) to at least one predetermined outlet of said plurality of outlets (OTLi, OTLj, OTLk) according to said R-bit connection identifier received from said header detection means (HDC), and to replace, into the header field of said cell, said set of H bits by a second set of H bits including the set of R bits constituting said connection identifier.

2. Telecommunication carrier processor subsystem according to claim 1, **characterized in that** said telecommunication interface means (TID) further includes header combination means (HCC) coupled to said header detection means (HDC) and to said routing means (RTC) and adapted to combine a set of D bits of information data with said set of R bits received from said header detection means (HDC) into said second set of H bits for replacing the first mentioned set of H bits contained in said header field, D being an integer number smaller or equal to the difference between H and R.

3. Telecommunication carrier processor subsystem according to claim 1, **characterized in that** said header detection means (HDC) includes a routing table having as input said portion of the set of H bits contained in said

header field and as output said set of R bits constituting said connection identifier.

4. Telecommunication carrier processor subsystem according to claim 1, **characterized in that** said telecommunication cells are Asynchronous Transfer Mode [ATM] cells.

5. Telecommunication carrier processor subsystem according to claim 2, **characterized in that** said carrier processor subsystem (CPS) further includes a plurality of carrier processor means (CPi) each having an inlet connected to an outlet (OTLi) of said telecommunication interface means (TID) and an output corresponding to an output (OUTi) of said carrier processor subsystem, each carrier processor means being adapted to transmitted or not to said output a cell received at said inlet according to at least a portion of the information data included in said set of D bits.

6. Telecommunication carrier processor subsystem according to claim 5, **characterized in that** each carrier processor means (CPi) of said plurality includes parameter detection means (PDC) connected to said inlet (OTLi) and carrier mapping means (CMC) connected to said inlet, to said output (OUTi) and to an output (OPD) of said parameter detection means, said parameter detection means being adapted to extract said second set of H bits contained in the header field of a cell received at said inlet, to translate said second set of H bits into a set of M bits and to transmit said set of M bits to said carrier mapping means.

7. Telecommunication carrier processor subsystem according to claim 6, **characterized in that** each of said carrier mapping means (CMC) is adapted to replace in the header field of said cell said second set of H bits by said set of M bits, prior to transmit said cell to said output (OUTi).